

Appl. No. 09/807,968
Amendment dated Oct. 14, 2003
Reply to Office Action of Apr. 14, 2003

Amendments to the Specification

Please replace the paragraph beginning on page 6, line 13 which starts with " An important aspect " with the following amended paragraph:

3, An important aspect of the invention are the shear bolts 50. Each shear bolt 50 fits through the respective slots 46 and 48 of both flanges 42 and 44 concurrently, with the shoulders 52 of the bolt 50 contacting the inside of the flanges 42 and 44. Referring in particular to figures 2 to 2c, each bolt 50 has two opposed flat sides 54 which are a suitable distance apart to form a close clearance fit inside the slots 46 and 48 to allow easy installation and/or replacement and to prevent the shear bolt 50 from rotating within its slot when threaded hex nuts 56 are installed. When the shear bolts 50 are inserted into the radial slots 46 and 48 on the flanges 42 and 44, flat washers 58 and lock nuts 56 (or other suitable fasteners) are assembled onto both ends of the shear bolts 50 (see figs. 1, 3 & 4a). The nuts 56 are tightened to draw the flanges 42 and 44 together until the shoulders 52 of the shear bolts 50 are in close contact with the inside of the coupler flanges 42 and 44. In doing so, the flanges 42 and 44 are held at a set distance "X" from each other and are securely connected to one another. The shear bolt 50 also has a shear area 60 or zone between the shoulders 52. This shear zone 60 is turned down on a lathe or other machine tool in a radially inwardly curved shape, or bowed profile, as best seen in figures 2, 2c and 4a, in such a way as to provide a shear area that is both much more susceptible to shearing or rupture than the rest of the shear bolt 50 or any other part of the entire coupling device 10 or drive train, and is of a pre-set and controllable diameter to achieve a desired ultimate shear torque of the entire coupling device 10. Hence, one can accurately control the maximum torque at which the bolts 50, and hence the coupling device 10, will shear to break the rotatable connection or link between the drive shaft

Appl. No. 09/807,968
Amendment dated Oct. 14, 2003
Reply to Office Action of Apr. 14, 2003

sections 16, 18 so as to avoid damage to the drive shaft from an over-torque situation.

^B
(cont.) The bolts are therefore the equivalent of fuses in an electrical device.
